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Docket: YOR919990479US1

REMARKS

It is noted that the claim amendments herein are intended solely to more particularly point out the present invention for the Examiner, and not for distinguishing over the prior art or the statutory requirements directed to patentability. That is, the rejection currently of record indicates that the Examiner is somewhat confused as to the significance of the claim language. Applicants have attempted to clarify the claim language for the benefit of the Examiner.

It is further noted that, notwithstanding any claim amendments made herein, Applicants' intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Entry of this amendment is proper under 37 C.F.R. §1.116, since no new claims are added, no new issues are raised, and the rejection currently of record must be clarified by the Examiner prior to Appeal.

Claims 1-48 are all of the claims pending in the present Application. The Examiner objects to claim 31 and 48. It is believed that the above claim amendments address the Examiner's concerns.

Applicants gratefully acknowledge the Examiner's indication that claims 11, 18, and 39 would be allowable if rewritten in independent format. However, Applicants decline to rewrite these claims at this time, since it is believed that the independent claims are fully allowable over the prior art of record.

Claims 1-10, 12-17, 10-38, and 40-48 stand rejected under 35 USC §103(a) as unpatentable over US Patent 6,459,682 to Elleson et al., further in view of US Patent 5,700,173 to Gossler et al., US Patent 5,719,854 to Choudhury et al., and US Patent 5,892,754 to Kompella et al.

These rejections are respectfully traversed in view of the following discussion.

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I. THE CLAIMED INVENTION

As described and claimed, for example, by claim 1, the present invention is directed to a method for managing and controlling allocation and de-allocation of resources based on a guaranteed amount of resource and additional resources based on a best effort for a plurality of customers. Server resources are dynamically allocated for a plurality of customers, such that the resources received by a customer are dynamically controlled and said customer receives a guaranteed minimum amount of resources as specified under a service level agreement (SLA). The service level agreement includes at least one parameter defining conditions of dynamically allocating and de-allocating said server resources. The dynamically allocating and de-allocating server resources includes selectively moving resources into and out of a pool of free resources.

The prior art of record fails to teach or suggest this concept of dynamic allocation of server resources as based on a service level agreement that includes one or more parameters that define dynamic allocation.

An advantage of the present invention is that it allows the server resources' owner to develop a business contract that defines how the resources will be allocated/de-allocated/re-allocated in a simple explanation to customers and in a manner that dynamic allocation calculations are much simpler, since the conditions of dynamic allocation changes are defined by specific parameters that are included in the service level agreement.

That is, there is no need to expend tremendous calculation effort to attempt to optimize a very complicated problem (e.g., contrast the present invention with the calculations involved in Choudhury), if such allocation parameters are not used.

II. THE OBJECTION TO THE TABLES

The Examiner continues to insist that Tables 1-5 be "de-associated" from Figures 1-6. Applicants respectfully again submit that Tables 1-5 fully comply with 37 C.F.R. §1.58. It is also brought to the Examiner's attention that Figures 1-6 are clearly labeled as being figures

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and that Tables 1-5 are clearly labeled as being tables. Therefore, Applicants respectfully submit that the tables are already clearly "de-associated" from the figures.

It is also brought to the Examiner's attention that page 7 of the specification correctly lists the six figures and that the tables are correctly referred to in various portions of the text of the specification. Therefore, again, the tables are already properly "de-associated", in accordance with the normal method of identifying figures and tables.

Finally, as best understood, the Examiner objects to the numbering in the identification indicia at the top of each page. It is brought to the Examiner's attention that this identification indicia is optional, in accordance with 37 CFR §1.84(c). Contrary to the Examiner's seeming assertion, this optional identification indicia is not a declaration that the tables are to interpreted as figures. Indeed, the normal procedure is to consecutively number all loose pages containing figures and tables for the convenience of the USPTO, to assist in keeping the figures and tables in correct sequence and to help ensure that a page is not inadvertently lost by the USPTO.

Therefore, Applicants again traverse that this arbitrary requirement to convert "tables" into "figures" is proper or that there is any need to "de-associate" the tables from the figures.

Accordingly, Applicants again respectfully request that the Examiner reconsider and withdraw this requirement.

III. THE PRIOR ART REJECTIONS

The Examiner asserts that US Patent 6,459,682 to Elleson et al. (commonly assigned), further in view of US Patent 5,700,173 to Gossler et al (commonly assigned), US Patent 5,710, 854 to Choudhury, and US Patent 5,892,754 to Kompella, renders obvious claims 1-10, 12-17, 19-38, and 40-48.

Applicants submit that the rejection currently of record fails to meet the initial burden of a *prima facie* rejection, for the following reasons.

First, it is noted that the Examiner concedes that Elleson fails to teach or suggest providing at least one parameter in the Service Level Agreement (SLA) that define conditions of dynamically allocating and de-allocating server resources. To overcome this deficiency,

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the Examiner relies upon Choudhury and Kompella. However, neither Choudhury, Gossler, nor Kompella even hint as an SLA that includes a parameter for defining allocation/de-allocation of server resources.

Second, as explained in MPEP §2143.01, it would be improper to modify a primary reference (e.g., Ellesson) merely because it could be modified or if such modification changes the principle of operation of the primary reference. More specifically, as clearly explained in lines 48-54 of column 1 of Ellesson: *"The SLA specifies customer expectations of performance in terms of parameters such as availability (bound on downtime), delay, loss, priority and bandwidth for specific traffic characteristics. An SLA includes acceptable levels of performance, which may be expressed in terms of response time, throughput, availability (such as 95% or 99% or 99.9%), and expected time to repair."*

Based on these lines, the Examiner correctly concludes that Ellesson fails to incorporate a parameter in the SLA for "dynamic allocation and de-allocation of server resources". Therefore, in accordance with the above-mentioned evaluation guidelines of MPEP § 2143.01, since an additional parameter in the SLA for allocation/de-allocation of resources would change the principle of operation of Ellesson, it would be irrelevant that it could be changed.

The rejection currently of record merely takes words out-of-context from Kompella to attempt to justify a modification that is not suggested in any of the references, to incorporate a dynamic allocation/de-allocation parameter into the SLA. That is, the Examiner's rationale is merely a purported result that would occur if Ellesson were to be modified.

Thus, the rejection currently of record provides a circular reasoning that the motivation to modify Ellesson would be to obtain the benefit of having made the modification. Using this circular reasoning, everything becomes obvious. Applicants submit that the avoidance of this circular reasoning is exactly the reason for the requirement that patentability analysis be objectively based upon the prior art itself, rather than mere conclusory statements that a combination is obvious because one would thereby obtain the benefit of having made the modification.

Applicants submit that a fair reading of Choudhury does not in any way suggest that the upper-limit and guaranteed-minimum parameters be placed in an SLA. Likewise, the

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Quality of Service specifications of Kompella address the problem of modifying the transmission strategy to meet the performance requirements of a specific application. This problem is not related to an SLA and has nothing to do with allocation/de-allocation of server resources.

To incorporate portions of techniques from either Choudhury or Kompella into Ellesson would clearly be based on improper hindsight, particularly when Ellesson itself already clearly defines the contents of the SLA. The Examiner is not allowed to simply ignore the explicit teachings of the primary reference itself.

Finally, it is noted that MPEP §2141.02 requires that: *"In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious."* [emphasis in MPEP itself]. The Examiner's circular reasoning clearly violates this evaluation guideline.

Hence, turning to the clear language of independent claims 1, 40, 41, and 47, there is no teaching or suggestion of " ... said service level agreement including at least one parameter defining conditions of dynamically allocating and de-allocating said server resources."

For this reason alone, claim 1-30 and 40-47 are clearly patentable over Ellesson.

Relative to independent claims 31 and 48, there is no indication of the throttling process described in these claims in Ellesson. The steps in these claims describe more than merely a recording of the throttling. That is, there is also described a specific service cycle time, a specific checking of the variable "ITC-informed(i)", and a specific resetting of the variable. The rejection currently of record fails to account for this plain meaning of the claim language.

Hence, turning to the clear language of the claims, there is no teaching or suggestion in Ellesson of: "... method of deciding server resource allocation for a plurality of customers, ... computing target values (Nt(i), Rt(i)) for every customer i and setting a variable "ITC-informed(i)" = "no" for all customers "i" such that a record is kept of whether or not throttling on inbound traffic is being applied or not during a given service cycle time; determining whether or not the service cycle time has expired; if the service cycle time has not expired, then checking whether an operation state M(i) is within a predetermined area

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defined by a metric and a number of resources; if the operation state is not within the predetermined area, then checking whether any customer exists such that a target resource amount $N_t(i)$ is less than a current resource amount $N(i)$; if $N_t(i)$ is less than $N(i)$, then determining whether the inbound traffic has been throttled, by determining whether, for any "i", $ITC\text{-informed}(i) = \text{"yes"}$; and if the inbound traffic has been throttled, then removing the throttling by directing an inbound traffic controller to stop throttling i-th traffic class and setting $ITC\text{-informed}(i) = \text{"no"}$.

Applicants request that the Examiner identify specific line and column numbers for each of these very specific steps in these claims.

Therefore, claims 31-39 and 48 are clearly patentable over Ellesson.

Finally, it is again requested that the Examiner place on record the specific line and column numbers for each claim limitation of all of the dependent claims. The present invention achieves a result in a specific manner, using specific variables.

For purpose of appeal, the following errors of the rejection currently of record.

Relative to claim 3, the Abstract of Gossler does not teach or suggest SLAs for a plurality of customers, let alone SLAs based on minimum and maximum servers.

Relative to claim 7, it cannot reasonably be stated that Ellesson teaches or suggests maintaining an "amount of allocable resources" for each customer, nor can it reasonably be stated that Ellesson defines a "state (M,N,R)" for each customer. It is noted that this is a very specific design detail of the present invention. The Examiner cannot simply ignore the plain meaning of the claim language, as it would be defined by one of ordinary skill in the art.

Relative to claim 8, Choudhury fails to teach or suggest using an SLA.

Relative to claim 9, Choudhury also fails to define a "state (M,N,R)".

Relative to claim 12, the description at lines 48-64 of column 13 is not related to making a decision between adding a new server or reducing inbound traffic rate.

Relative to claims 14-16, there is no suggestion in any prior art reference to implement allocation/de-allocation parameters in an SLA, let alone in the specific format and concepts described in the claim.

Relative to claims 17 and 19-25, the Examiner points to no specific location in any reference.

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Relative to claim 28, the "cost of providing service to a new customer" is not what is being claimed.

Relative to claims 31-38, 40-46, and 48, the Examiner is requested to provide specific line and column numbers.

For the reasons stated above, the claimed invention is fully patentable over the cited references.

Further, the other prior art of record has been reviewed, but it too, even in combination with Ellesson, Gossler, Choudhury and Kompella, fails to teach or suggest the claimed invention.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-48, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date: 1/27/04

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